

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	MUNNS	Examiner:	UNKNOWN
Serial No.:	10/723,382	Group Art Unit:	UNKNOWN
Filed:	NOVEMBER 25, 2003	Docket:	3165.41USU1
Due Date:	FEBRUARY 25, 2004		
Title:	SUPER LATTICE MODIFICATION OF OVERLYING TRANSISTOR		

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: , Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on February 25, 2004.

By: 

Name: KATE CANNON

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**23552**

PATENT TRADEMARK OFFICE

Sir:

We are transmitting herewith the attached:

- ☒ Transmittal Sheet in duplicate containing Certificate of Mailing
- ☒ Information Disclosure Statement, Form 1449, 10 Reference(s)
- ☒ Return postcard

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers or any future reply, if appropriate. Please charge any additional fees or credit overpayment to Deposit Account No. 13-2725. A duplicate of this sheet is enclosed.

MERCHANT & GOULD P.C.  
P.O. Box 2903, Minneapolis, MN 55402-0903  
612.332.5300

By: 

Name: Anna M. Nelson

Reg. No.: 48,935

ANelson:PLSklg



S/N 10/732,382

PATENT

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By:

Name:

*Kate Gannon*  
KATE GANNON

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(b))

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted within three months of the filing date of the above-identified application, which is not an application under 37 C.F.R. § 1.53(d). Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2)(i), a copy of the U.S. patents and U.S. patent publications listed on the enclosed Form 1449 are not provided, as this application was filed after June 30, 2003. A copy of any foreign patent document or "Other Document" listed on the Form 1449 is enclosed, in accordance with 37 C.F.R. §1.98(a)(2).

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

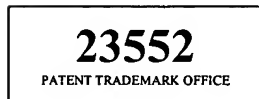
Please charge any additional fees or credit any overpayment to Deposit Account No. 13-2725.

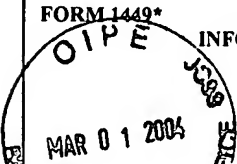
Respectfully submitted,

MERCHANT & GOULD P.C.  
P.O. Box 2903  
Minneapolis, MN 55402-0903  
612/332-5300

Date: February 25, 2004

Anna M. Nelson  
Anna M. Nelson  
Reg. No. 48,935  
AMN:PLSklg



<b>FORM 1449*</b>  <b>INFORMATION DISCLOSURE STATEMENT</b>  <b>IN AN APPLICATION</b> (Use several sheets if necessary)	Docket Number: 3165.41USU1	Application Number: 10/723,382
	Applicant: MUNNS	
	Filing Date: 11/25/2003	Group Art Unit: UNKNOWN

U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	3,677,836	07/18/1972	Lorenz			
	4,205,331	05/27/1980	Esaki et al.			
	4,673,959	06/16/1987	Shiraki et al.			
	5,087,576	02/11/1992	Edmond et al.			
	5,107,314	04/21/1992	Kahng et al.			
	5,138,408	08/11/1992	Ando			
	5,147,817	09/15/1992	Frazier et al.			
	5,162,243	11/10/1992	Streit et al.			
	5,192,987	03/09/1993	Khan et al.			
	5,208,820	05/04/1993	Kurihara et al.			
	5,284,782	02/08/1994	Jeong et al.			
	5,296,395	03/22/1994	Khan et al.			
	5,300,186	04/05/1994	Kitahara et al.			
	5,408,487	04/18/1995	Uchida et al.			
	5,435,264	07/25/1995	Santiago et al.			
	5,449,930	09/12/1995	Zhou			
	5,484,664	01/16/1996	Kitahara et al.			
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	5,751,753	05/12/1998	Uchida			
	5,804,834	09/08/1998	Shimoyama et al.			
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	5,903,017	05/11/1999	Itaya et al.			
	5,932,006	08/03/1999	Santiago et al.			

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

<b>FORM 1449*</b>	<b>INFORMATION DISCLOSURE STATEMENT</b>	Docket Number:	Application Number:
		3165.41USU1	10/723,382
		Applicant: MUNNS	
<b>IN AN APPLICATION</b>		Filing Date: 11/25/2003	Group Art Unit: UNKNOWN
(Use several sheets if necessary)			

	6,048,748	04/11/2000	Khare et al.			
	6,051,866	04/18/2000	Shaw et al.			
	6,147,364	11/14/2000	Itaya et al.			
	6,150,674	11/21/2000	Yuri et al.			
	6,201,264 B1	03/13/2001	Khare et al.			
	6,208,001 B1	03/27/2001	Santiago et al.			
	6,306,212 B1	10/23/2001	Santiago et al.			
	6,342,411 B1	01/29/2002	Pitts, Jr.			
	6,521,961 B1	02/18/2003	Costa et al.			

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

		Fan, Z. et al., "Suppression of leakage currents and their effect on the electrical performance of AlGaIn/GaN modulation doped field-effect transistors," <i>Appl. Phys. Lett.</i> , Vol. 69, No. 9, pp. 1229-1231 (August 26, 1996)
		Kusakabe, K. et al., "Reduction of threading dislocations in migration enhanced epitaxy grown GaN with N-polarity by use of AlN multiple interlayer," <i>Journal of Crystal Growth</i> , Vol. 230, pp. 387-391 (2001)
		Heying, B. et al., "Role of threading dislocation structure on the x-ray diffraction peak widths in epitaxial GaN films," <i>Appl. Phys. Lett.</i> , Vol. 68, No. 5, pp. 643-645 (January 29, 1996)
		Hirayama, H. et al., "Fabrication of a low-threading-dislocation-density Al <sub>x</sub> Ga <sub>1-x</sub> N buffer on SiC using highly Si-doped Al <sub>x</sub> Ga <sub>1-x</sub> N superlattices," <i>Appl. Phys. Lett.</i> , Vol. 80, No. 12, pp. 2057-2059 (March 25, 2002)
		Nitta, S. et al., "Mass transport and the reduction of threading dislocation in GaN," <i>Applied Surface Science</i> , Vol. 159-160, pp. 421-426 (2000)
		Sverdlov, B. et al., "Formation of threading defects in GaN wurtzite films grown on nonisomorphic substrates," <i>Appl. Phys. Lett.</i> , Vol. 67, No. 14, pp. 2063-2065 (October 2, 1995)
		Wang, H. et al., "AlN/AlGaIn superlattices as dislocation filter for low-threading-dislocation thick AlGaIn layers on sapphire," <i>Appl. Phys. Lett.</i> , Vol. 81, No. 4, pp. 604-606 (July 22, 2002)
		Weimann, N. et al., "Scattering of electrons at threading dislocations in GaN," <i>J. Appl. Phys.</i> , Vol. 83, No. 7, pp. 3656-3659 (April 1, 1998)
		Zhang, Y. et al., "Charge control and mobility studies for an AlGaIn/GaN high electron mobility transistor," <i>J. Appl. Phys.</i> , Vol. 85, No. 1, pp. 587-594 (January 1, 1999)
		Zhang, X. et al., "Enhanced optical emission from GaN films grown on a silicon substrate," <i>Appl. Phys. Lett.</i> , Vol. 74, No. 14, pp. 1984-1986 (April 5, 1999)

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